

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
23 December 2004 (23.12.2004)

PCT

(10) International Publication Number
WO 2004/110614 A1

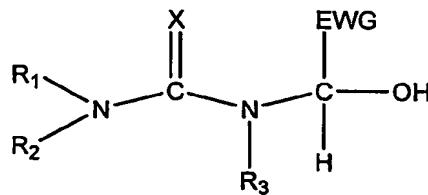
- (51) International Patent Classification⁷: **B01J 13/06, 13/20**
- (21) International Application Number: **PCT/NL2004/000412**
- (22) International Filing Date: 10 June 2004 (10.06.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
03076842.8 13 June 2003 (13.06.2003) EP
- (71) Applicant (*for all designated States except US*): **DSM IP ASSETS, B.V. [NL/NL]**; Het Overloon 1, NL-6411 TE Heerlen (NL).
- (72) Inventor; and
- (75) Inventor/Applicant (*for US only*): **VAN BENTHEM, Rudolfus, Antonius, Theodorus, Maria [NL/NL]**; Sportlaan 9, NL-6141 BR Limbricht (NL).
- (74) Agent: **HABETS, Winand, Johannes, Antonius; DSM Intellectual Property, P.O. Box 9, NL-6160 MA Geleen (NL).**
- (81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: ENCAPSULATED MATERIALS



(1)

WO 2004/110614 A1

(57) Abstract: The invention relates to a process for forming capsules comprising the steps of: (1) forming a solution of an amino compound (1) in a solvent; (2) forming a dispersion of a core material in the solution; (3) depositing the amino compound as a resin upon the surface of the core material to form capsules; and (4) optionally hardening and/or recovering the capsules, whereby steps (1) and (2) are executed in either order or simultaneously, and wherein amino compound (1) has the following formula (I) where: X is O or NR₅; EWG is an electron-withdrawing group; R₁, R₂, R₃, R₅ are equal to an H, alkyl, cycloalkyl, aryl or heterocyclic group; and R₁, R₂, and R₅ or R₁, R₂, and R₃ may together form a heterocyclic group.